

Not on file: *Engineer Highlight*

Title: NASA Deputy Manager, TransHab Project.

Time at JSC: 17 years including three as a co-op.

Education: University of Texas, B.S., mechanical engineering; Stanford University, M.S., mechanical engineering.

Favorite music: Classic rock, some Christian rock and some alternative rock.

Favorite book or movie: The best I can do here is to say that my favorite magazine is *Invention & Technology* and my favorite show is the weekly *Car Talk* on National Public Radio.

When away from JSC: I am very interested in photography – in fact, the shots in my office were taken from Yosemite and the Grand Canyon. I also enjoy biking and am very involved in “Ultimate” Frisbee.

What you like about NASA...and your job at JSC: The fact that we are doing exciting things. That we are going to space! You couldn’t trade this job for anything!

Background: If you ever have a moment to talk with JSC’s George Parma, it won’t take you long to resolve that this individual is very passionate about his work. His enthusiasm for the projects he works on, in the past as well as present, transcend into his work and likely are what have positioned him as the “go to” guy for many of JSC’s complicated pet projects.



George Parma is joined by Chris Miller (left) for some Ultimate recreation.

Name: **George Parma**

His role in the TransHab project may be his most challenging yet – but he certainly has a past that has groomed him for the task. Like so many other successful JSC employees, Parma began at NASA as a co-op – his first taste of the space program was as a flight controller with the mechanical systems group for STS-6 back in 1983. He went on rotations in Engineering’s structures, propulsion, and crew systems divisions, but knew he had found his home in mechanical design. After completing a NASA fellowship at Stanford for a master’s in mechanical engineering, Parma returned to JSC to work in

robotics which opened the door to his first big project – SPIFEX. Parma calls his role as the project manager for the Shuttle Plume Impingement Flight Experiment his dream job. “That project was really unique,” said Parma. “We were able to accomplish so much even though we had to beg, borrow and steal to get the job done.” Used on STS-64, SPIFEX was a project that incorporated a 32-foot extension onto the end of the shuttle’s robotic arm and recorded measurements that were used to verify computer modeling of orbiter propulsion plumes.

Parma’s success with the SPIFEX branded him as a leader and when NASA focused its attention on developing a new emergency crew return vehicle, he found himself being asked to help start the team. For Parma, working on the X-38 represented a new “faster, better, cheaper” approach to building spacecraft. “On the X-38 you have to rely on a lot of good judgment and good engineering sense – you have to know you have good people on your team and let them run with the ball,” said Parma. “Plus you spend a lot of time hands-on the vehicle – I logged a lot of hours doing mechanical tests and adjustments in a hot airplane hanger at NASA Dryden.” Parma’s space flight management experience is what brought him to the TransHab project. “They needed someone who had taken a project from the cradle to flight, someone who knew the pitfalls and the hoops to jump through,” explained Parma. Clearly, the TransHab team is a similarly driven group, motivated by the prospect of seeing their vision become a reality.

“This is trailblazing stuff,” said Parma. “Our team has established that an inflatable, fabric structure can be reliable. We developed the baseline technology and built a full-size model in less than three months. That’s exciting! They’ve talked about using inflatables for 30 or 40 years and we, right here at JSC, are about to push that technology into reality. We are on the cutting edge of the future of spacecraft.” ■

Local TV personality receives NASA award

Sylvan Rodriguez, a familiar face to many Houstonians and JSC employees, was recently awarded NASA’s Distinguished Public Service Medal. Center Director George Abbey and Associate Director Sue Garman presented Rodriguez with the award at a ceremony last month citing his “exceptional professionalism and objectivity as a journalist and news anchor.” Abbey also commended his “unfailing support to the nation’s space program, and the outstanding inspiration” he provided to youths whose lives he has touched. Rodriguez began his career as a newscaster in Houston in 1977, including significant

coverage of the nation’s space program. He has covered the Space Shuttle Program since its infancy, including interviews with its foremost leaders. He was a key member of the newscast team that reported on the first shuttle launch and landing, the *Challenger* accident, and many other space programs to date. In addition to his contributions as a member of the news media, Rodriguez also has been very active in community affairs. His golf tournaments have raised money for many worthwhile programs, including the Challenger Centers that continue to inspire the youth of America to reach for their dreams. ■



Center Director George Abbey, Dr. Shelley Sekula-Rodriguez and Sylvan Rodriguez at a reception recognizing Sylvan’s award.

CONSTRUCTION: *the fascination and the folly*

By Mary Peterson

There’s a reason we liked LEGOS® and Lincoln Logs® as kids. Building things, or seeing them built, has an endless fascination for most of us. And so it is, even at construction sites around JSC, with one glaring exception – we didn’t worry about safety with our playroom skyscrapers. At JSC, we not only do; we must. Why, then, do we see employees frequently ignoring the yellow barrier tapes where repairs and construction work is being done? “I think the employees largely misunderstand construction sites and what they are trying to accomplish,” says Ed (Bear) Handwerk, a senior facilities safety engineer for Muñiz Engineering. “The yellow ‘caution’ tapes are both to protect the employees doing the construction work so they will not be distracted, which, in turn, could lead to a mishap, and to keep

non-workers restrained because of the inherent dangers around the worksite,” he said. No one should venture inside posted hard hat areas without authorization and the required safety gear. Further, when heavy equipment is being used, such as a backhoe, an excavator, or a crane, and a person intrudes into the area, this creates a delay or even a complete work stoppage. Still, there are a few who ignore the yellow barrier tapes, sometimes with comical, sometimes with potentially disastrous, results. “Take, for example,” said Handwerk, “the employee near the Building 3 cafeteria who was in a hurry to get to the ATM machine. Crossing through the barrier tape as a shortcut, the employee stepped in what looked like an ordinary mud puddle. Wrong! It was actually a puddle of mortar mix, and it gets hard real fast!” The construction boss had to stop work to give a hand. So much for instant cement boots.

Other, more serious problems could be dealt by falling building materials or a cave-in at an excavation site. “I recall one instance,” Handwerk said, “when a crane was being used in a sizeable JSC construction area. Because curious employees kept moving in so close, it was necessary to put up a double barrier, one 6 feet outside the original, to be sure they were kept at a safe distance.” A crane operator has many things to watch during operation, including crew signals, and a solitary interloper could go easily unnoticed. Many times the danger posed may not be understood, and should the workmen have to stop or jerk a load, that load could easily fall. Given that the soil in our area is high sandy-loam content, cave-ins are always a potential threat. By standing too near the edge of an excavation, not only could the intruder fall in, the worker in the pit could be buried as well. “The rules around construction sites,” says Handwerk, “are different from those

for conventional safety, and in some cases, might lead the casual observer to think that safety rules are not being applied. He cited the case of the employees who reported that construction workers on the Bldg. 3 cafeteria were not “tied off.” What they did not understand was that often, when workers cannot function efficiently with the encumbrances of conventional safety gear, they employ a safety monitoring system, wherein other workers constantly watch and warn them away from potential danger, a technique that is OSHA approved. Fall protection criteria are different for certain construction due to the uniqueness of equipment not found in general industry. Still, it is important that all JSC employees be aware not only of their safety, but the safety of others, and they are encouraged to report unsafe practices. For those who insist upon ignoring the rules, construction workers have been asked to take badge names of the offenders. ■